Rhodora

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Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 18. December, 1916. No. 216.

PINUS BANKSIANA ON NANTUCKET.

EUGENE P. BICKNELL.

IN the interest of geographic botany a further word should be said in the matter of *Pinus Banksiana* on Nantucket as reported by Professor Harshberger in RHODORA, **16**: 184. The identity of the trees is not at all in question. The record rests on unquestioned authority, and I myself, a number of years ago, observed their little group in thriving growth at the locality described by Professor Harshberger. What has been their history there? For two reasons it would be a very notable thing were the Labrador pine by native right a member of the Nantucket flora. It would be very notable because of the wide severance from its present well defined natural range by which a remote northern tree had a place in the vegetation of Massachusetts and of southern New England; and it would be scarcely less a matter of botanical interest in its contradiction of a pronouncement of local history that Nantucket was originally a pineless island — originally, for it has never been questioned that the pitch pines, now so conspicuous a feature of the island's vegetation are not of native Nantucket ancestry. Mrs. Owen, writing in 1888, does not hesitate to say "The pines are all from seed planted by Joseph Sturgis and others in 1847 and following years."

The Labrador pines grow in a part of the island long ago explored by botanists, and close to the old Wauwinet road. It would be against the presumption that they had always grown there that so conspicuous a tree as a conifer, and so remarkable a thing as a colony of pine trees on Nantucket in the days before any pines were known to grow there, had failed of discovery by those earlier investigators.

It may be presumed that Doctor Harshberger, when he made his discovery, was limited to only a very hasty survey of the surroundings. His experienced eye in matters of plant association could not otherwise have failed to note in nearby community with the Labrador pines other conifers even more widely divorced from their natural habitats. *Pinus sylvestris* of northern Europe is there, and *Pinus massoniana* of China, growing among the native thickets, and with them are examples of our northern *Picea canadensis*, and the Rocky Mountain *Picea pungens*, besides, I am quite sure, other evergreens not now clearly recalled, as well as several kinds of exotic deciduous trees, all of which, including the Labrador pines have long been listed in nurseryman's catalogues. The largest of the Labrador pines are quite obviously of no greater age than their associates from other climes, and their group, which includes some smaller trees that must have sprung up naturally from seed, is doubtless of contemporary origin with a conspicuous and now well-matured and too closely grown planting of ornamental evergreens that tell their own tale. And their story may be amplified. A life long resident of the island gave me the information that, many years before, someone, whose name I had then no care to note, having an interest in that part of the island and in trees as well, planted there a large number of different kinds of trees, especially evergreens. My informant had it that a hundred different kinds had been set out there, although I saw no evidence of any quite so ambitious an attempt at arboriculture. I recall that some of these trees were being sacrificed to the construction of a tennis court which, as laid out, would separate the Labrador pines from the group of larger species, thus giving them a sort of isolation and appearance of nativity.

It may be not impossible that the group of trees described by Professor Harshberger is not identical with the one known to me. I do not, indeed, seem to recognize his wind swept trees near an ocean bluff. But the bluff, or low bank such as it is at Wauwinet, is at no great distance, and if there are really two groups of these pines their source of origin can scarcely have been other than the same. It does not seem to follow that any great phytogeographical import can attach to the fact that the Labrador pine grows on Nantucket, or that its presence there affords any just grounds for speculation on the mysteries of plant distribution.

NEW YORK CITY.

NEW RANGES FOR OLD PLANTS.

Oliver Atkins Farwell.

In the early autumn of 1915 I was invited by Mr. Gladewitz and Mr. Chandler, both of Detroit, to accompany them on a botanical excursion to Oakwood, a suburban village to the south of Detroit. This is the site of one of the many salt works in this locality. Here is located the Detroit Rock Salt Co. which has, in spite of many difficulties, sunk the only salt "shaft" in Michigan if not in the entire country. The water and fine crystals from the salt works have converted a large tract of land from that of a fresh soil to one of a saline character which has to a certain extent changed the character of the flora. Many species have disappeared that once were common. Some new ones have crept in that have a distinct preference for saline situations. These are *Salicornia Europaea* L. and its varieties *pachystachya* (Koch) Fernald and *prostrata* (Pall.) Fernald, *Aster subulatus* Mx., and *Pluchea camphorata* (L.) DC. Just how these seaboard plants found their way into Michigan is problematical. Scarcely by means of birds as the feathered tribes do not travel east and west but rather on a north and south line. We have no substantiated records showing that Atlantic or Pacific birds have migrated across country and into the Great Lake regions. We can only surmise that they may have been brought west by means of railway freight traffic and when lodgement was made in this section, which provided the proper saline conditions suitable for their development, they persisted and have made flourishing colonies that are rapidly extending over the entire section which has been made saline by means of the escaping water and salt crystals from the mine and the salt crushers. The Rayless Aster and the Salt Marsh Fleabane spread rather slowly but apparently have become firmly established.

The Glasswort has spread very rapidly and now covers acres of ground. The variety *prostrata* with its long, widely spreading, and decumbent lower branches seems very distinct from the normal form of the species with ascending, more uniform (as to length) branches. The variety *pachystachya* is frequent; but as found here it seems scarcely worthy of recognition. The only distinction is one of measurements and in the dried specimens, even this difference vanishes. There are

intermediate individuals also, bearing both thick and slender spikes. Mr. Gladewitz, Secretary and Treasurer of the Detroit Institute of Science, was the first to discover and report these squatters that have preëmpted that section of Michigan territory which seems to provide those cool and saline conditions to which they are accustomed in their native haunts.

Another traveler that recently has been reported from the eastern shores of Michigan between Detroit and Port Huron is *Aster angustus* (Lindl.) T. & G. This is quite plentiful on a common in the village of River Rouge, on the banks of the Detroit and Rouge Rivers. This village is not far removed from Oakwood and the salt fields probably underlie it though the surface soil, at least to a tyro, gives no indication of a saline character.

Mr. Chandler was the original discoverer of the Rayless Aster at this locality and probably the first to record it from Michigan.

Mr. Billington of Detroit, has discovered near Palmer Park, Detroit, Mich., a plant that proves to be *Pentstemon gracilis* Nutt. This is far east of its recorded range of from Minnesota to Missouri for its eastern limits. He has also found near Cass Lake *Galium erectum* Huds. This has not been recorded heretofore for localities west of the New England states. It seems to be well established at the locality mentioned. Specimens of the above have been preserved for their private herbaria by the original discoverers. Such as I have collected are as given below.

Salicornia Europaea L.: Oakwood, Mich.; *Farwell, Gladewitz & Chandler*, no. 4105, Sept. 23, 1915. *Salicornia Europaea* Linn. var. *pachystachya* (Koch) Fernald: Oakwood, Mich.; *Farwell, Gladewitz & Chandler*, no. 4107, Sept. 23, 1907. *Salicornia Europaea* Linn. var. *prostrata* (Pall.) Fernald: Oakwood, Mich.; *Farwell, Gladewitz & Chandler*, no. 4103. *Aster subulatus* Mx.: Oakwood, Mich.; *Farwell, Gladewitz & Chandler*, no. 4102, Sept. 23, 1915. *Aster angustus* (Lindl.) T. & G.: River Rouge, Mich.; *Farwell*, no. 4122, Sept. 30, 1915. *Pluchea camphorata* (Linn.) DC.: Oakwood, Mich.; *Farwell, Gladewitz & Chandler*, no. 4104, Sept. 23, 1915.

Department of Botany,
PARKE, DAVIS & CO. Detroit, Michigan.

PRELIMINARY LISTS OF NEW ENGLAND PLANTS,—XXIV.

Clarence H. Knowlton.

[The sign + indicates that an herbarium specimen has been seen; the sign − that a reliable printed record has been found.]

Saxifragaceae.	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Chrysosplenium americanum Schwein.	+	+	+	+	+	+
Deutzia scabra Thunb.						+
Heuchera americana L.						+
Hydrangea cinerea Small.				+		
" quercifolia Bartram						+
Mitella diphylla L.		+	+	+		+
" nuda L.	+	+	+	+		+
" prostrata Michx.						−
Parnassia caroliniana Michx.	+		+	+	+	+
Philadelphus coronarius L.			+	+	+	+
" " var. tomentosus (Wall.) Hook. f. & Thoms.				+		
Philadelphus inodorus L.						−
" pubescens Loisel.						−
Ribes americanum Mill.	+	+	+	+	+	+
" Cynosbati L.	+	+	+	+		+
" gracile Michx.						+
" Grossularia L.		+		+		+
" hirtellum Michx.	+	+	+	+	+	+
" " var. calcicola Fernald	+			+		
" lacustre (Pers.) Poir.	+	+	+	+		−
" nigrum L.	+	+	+	+		+
" odoratum Wendland	+			+	+	+
" prostratum L'Hér.	+	+	+	+		−
" rotundifolium Michx.						+
" triste Pall.	+	+	+			
" " var. albinervium (Michx.) Fernald	+	+	+	+		
" vulgare Lam.	+	+	+	+		+
Saxifraga aizoides L.			+			
" Aizoon Jacq.			+			
" oppositifolia L.			+			

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
SAXIFRAGACEAE.						
Saxifraga pennsylvanica L.	+	+	+	+	+	+
" rivularis L.		+				
" stellaris L., var. comosa Willd.	+					
" virginiensis Michx.	+	+	+	+	+	+
Tiarella cordifolia L.	+	+	+	+		+
HAMAMELIDACEAE.						
Hamamelis virginiana L.	+	+	+	+	+	+
Liquidambar Styraciflua L.				−		+
PLATANACEAE.						
Platanus occidentalis L.	−	+	+	+	+	+

NOTES UPON THE ABOVE LISTS.

FOR several of the Rhode Island records I have relied on reports by J. Franklin Collins, of specimens in his own herbarium and that of Brown University.

Astilbe japonica was collected on wastes in Providence by Mr. Collins in 1891 and 1892. The species maintained itself for several years.

Deutzia is often persistent in old gardens and nurseries, but I have found no record of *D. gracilis* Sieb. & Zucc. as spontaneous or spreading.

Hydrangea paniculata Sieb. often persists for years without cultivation, but does not spread. *H. cinerea* in the above list is escaped only at Groveland, Mass. *H. quercifolia* has been found at Norwalk, Conn., by Dr. E. H. Eames, in a large colony spread from former cultivation. As this species is not considered hardy in New England (Bailey, Cyclopedia of Horticulture), it will be interesting if this station persists.

Mitella diphylla is credited to Maine in the second Portland Catalogue, but I can find no specimens of it. Mr. Arthur H. Norton has written me from the Portland Society of Natural History: "I suspect that the inclusion in our Second Portland Catalogue may rest

upon its inclusion in the First Portland Catalogue, 1862 and 1864. *Mitella diphylla* may I think have arisen through an erroneous identification of *Tiarella cordifolia*. We have in our herbarium a specimen of the latter collected in 1877, labelled *Mitella diphylla!* from a point near Portland. In a hasty review of the subject I have found no Maine report earlier than the first Catalogue."

Mitella prostrata (See Fernald, RHODORA viii. 90–2, 1906). This plant was collected by Michaux at "lac Champlain," evidently at the Canadian end, "ad fines meridionales Canadae." A plant corresponding to Michaux's specimen was found at New Milford, Conn., by C. K. Averill and E. H. Austin (Conn. Geol. and Nat. Hist. Survey, Bull. No. 14, 216, 1910). Botanists who collect where *M. diphylla* is abundant should watch for this plant, which seems closely related to that species.

The various kinds of *Philadelphus* are often persistent around old places, but *P. coronarius* seems to be the only species vigorous enough to spread much.

Ribes gracile is apparently a waif in our territory (Conn. Geol. and Nat. Hist. Survey, Bull. No. 14, 217–8, 1910). *R. hirtellum*, var. *calcicola* is reported only from Monhegan and Martha's Vineyard, but should be looked for elsewhere, especially along the coast. There are various indefinite printed reports of *R. rotundifolium* from western Massachusetts, but I have not succeeded in finding any authentic specimens.

Parnassia caroliniana, abundant in Aroostook County, Me., seems to skip central and western Maine and New Hampshire entirely, to reappear in the calcareous districts of western and southern New England.

The three calciphile species of *Saxifraga*, *S. aizoides*, *S. Aizoon* and *S. oppositifolia*, are found only in the Willoughby region and Smuggler's Notch, Vermont. *S. rivularis* is found only on Mt. Washington, and *S. stellaris*, var. *comosa* only on Mt. Ktaadn.

Liquidambar Styraciflua is reported from Northampton, Mass., in Tuckerman & Frost's Catalogue of Plants growing without cultivation within thirty miles of Amherst College, 1875. No station is known for it now, but the tree is so unlike others that it is hard to see how botanists like Amos Eaton and Edward Tuckerman could be mistaken in the matter. I should suggest that it be searched for in the strip of land between Mt. Tom and the Connecticut River, south of Smith's Ferry, which has recently been annexed to the city of Holyoke.

I have found no specimen of *Platanus occidentalis* from Maine. I include the record, however, because it is reported by George B. Emerson, who says, "Along the coast I have found it in the county of York, in Maine." (Trees and Shrubs of Mass., 3d ed. vol. 1, 266, 1878.)

HINGHAM, MASSACHUSETTS.

REPORTS ON THE FLORA OF THE BOSTON DISTRICT, — XXV.

CAPPARIDACEAE.

CLEOME.

C. SERRULATA Pursh. Field off Water St., Lawrence (*M. E. Gutterson*, Aug. 4, 1903). Introduced from the West.

C. SPINOSA L. Dump east of University Press, Cambridge (*A. S. Pease*, Sept. 30, 1907); Lexington, according to Mabel P. Cook, RHODORA i. 81, 1899.

RESEDACEAE.

RESEDA.

R. ALBA L. Garden escape; Lynn, Dedham, Blue Hills, Sherborn.

R. LUTEA L. Fields and roadsides; Rockport, Tyngsboro, Westford, Lexington, Charlestown, Sherborn.

R. LUTEOLA L. Lynn (*Wm. Boott*, June 16, 1855; specimen in Gray Herb.).

R. ODORATA L. Boston (*C. E. Perkins*, Aug. 5, 1882); casual escape, cultivated ground, Dorchester (*J. R. Churchill*, —, 1882). From northern Africa and Syria.

SARRACENIACEAE.

SARRACENIA.

S. purpurea L. Peat-bogs and wet meadows, common.

S. purpurea L., var. **heterophylla** (Eat.) Torr. Form correspond-

ing to this is reported in Robinson, Fl. Essex Co. 32, 1880. The same form has been found at Scituate by Edward Wesley Cushman.

DROSERACEAE.

DROSERA.

D. longifolia L. Wet shores and bogs, frequent throughout. A caulescent form is described and illustrated in RHODORA ii. 70, 1900.

D. rotundifolia L. Moist soil and wet sandy shores, common.

PODOSTEMACEAE.

PODOSTEMUM.

P. ceratophyllum Michx. On rocks in running water; Charles River, S. Natick (*E. & C. E. Faxon*, Aug. 3, 1880 et seq.); Stony Brook [Weston ?], (*J. W. Blankinship*, Oct. 18, 1894).

CRASSULACEAE.

PENTHORUM.

P. sedoides L. Swampy places, common.

SEDUM.

S. ACRE L. Dry ledges, frequent.

S. TRIPHYLLUM (Haw.) S. F. Gray. (*S. purpureum* Tausch. See RHODORA xi. 46, 1909). Roadsides and yards, frequent.

S. REFLEXUM L. Pigeon Cove, Rockport (*Mrs. Wheeler*, 1876 et als.). Concerning this species as an escape from cultivation, Prof. Asa Gray wrote in the American Naturalist for October, 1876, on page 553, as follows: "This Old World *Sedum*, which is occasionally met with in old-fashioned gardens, has established itself at Pigeon Cove, Essex County, Mass. . . . . It occupies an old stone-heap, in a patch a yard or two in diameter, where 'Mrs. Sarah Ann Colburn says she noticed it when she was a very little girl, at least sixty years ago.' . . . . As the station of the plant is only a few rods distant from the ancient

dwelling known as 'the Garrison House' .... we cannot doubt that it is an escape from gardens." Also in some abundance by a roadside in dry woods between Carlisle and Concord (*M. L. Fernald & S. C. Brooks*, October 6, 1912).

S. TERNATUM Michx. Garden escape, Danvers (*J. Robinson*, —, 1877; *J. Robinson & C. E. Faxon*, May 29, 1885).

SEMPERVIVUM.

S. TECTORUM L. Ledges and hillsides; Woburn, Winchester, Medford, Sudbury, Natick, Norfolk.

TILLAEA.

T. aquatica L. Mud flats of Merrimac River at the "Laurels," tidal banks above salt water, Newburyport (*A. A. Eaton*, September, 1895; specimen in Gray Herb.).

SAXIFRAGACEAE.

CHRYSOSPLENIUM.

C. americanum Schwein. Brooks and ditches, common throughout.

HYDRANGEA.

H. CINEREA Small. Escaped, Groveland (*A. R. Lunt*, Aug. 28, 1911).

MITELLA.

M. diphylla L. Rich woods; Salisbury (*Edward Moulton*, —, 1886); Newburyport (*Edward Moulton*, May 20, 1887); Purgatory Swamp, Norwood (*C. W. Swan*, June 17, 1882); Groton (*Miss H. E. Haynes*), according to Dame & Collins, Fl. Middlesex Co. 35, 1888.

M. nuda L. Indian Hill Run, West Newbury (*A. A. Eaton*, ——, 1897; specimen in herb. N. E. Botanical Club).

PARNASSIA.

P. caroliniana Michx. Meadows; Danvers, Lynnfield, Wakefield, Malden, Weston, Groton, Framingham; Georgetown, Topsfield, Hamilton, Marblehead, according to Robinson, Fl. Essex Co. 51, 1880; Reading, Ashland, according to Dame & Collins, Fl. Middlesex Co. 35, 1888.

PHILADELPHUS.

P. CORONARIUS L. Roadside escape, Blue Hills (*W. H. Manning*, Sept. 1, 1895).

P. CORONARIUS L., var. TOMENTOSUS (Wall.) Hook. f. & Thoms. A foreign introduction; well established, persistent and forming thickets on rocky knoll near site of old greenhouse, Arlington (*C. A. Weatherby*, Aug. 4 and 24, 1908). See RHODORA xvii. 122, 1915.

RIBES.

R. americanum Mill. (*R. floridum* L'Hér.; see RHODORA xi. 46, 1909.) Moist soil from Sherborn and the Blue Hills north, occasional; also at N. Easton (*C. Blomberg*, May 6, 1902).

R. GROSSULARIA L. Wilmington (*B. L. Robinson*, May 4, 1899); roadside, Arlington, (*M. L. Fernald*, May 11, 1913); Blue Hills (*W. H. Manning*, Aug. 21, 1894); in woods, dry rocky hillside, Cohasset (*J. A. Cushman*, May 29, 1907).

R. hirtellum Michx. (*R. oxyacanthoides* of authors, not L.; see Fernald, RHODORA xiii. 73–76, 1911.) In wet and dry soil, frequent throughout.

R. NIGRUM L. Occasional garden escape; "Ipswich River," Lowell, Milton, Medway.

R. ODORATUM Wendland. (*R. aureum* of authors, not Pursh.; see RHODORA xi. 47, 1909.) Persistent and escaping from old gardens; Georgetown, Andover, Salem, Sherborn.

R. VULGARE Lam. Spontaneous, persistent, frequent throughout.

SAXIFRAGA.

S. pennsylvanica L. Swamps and meadows, common throughout.

S. virginiensis Michx. Dry banks and ledges, very common throughout.

TIARELLA.

T. cordifolia L. Rich woods, rare; Salisbury, Amesbury, Newburyport, Danvers, Norwood; Groton (C. W. Jenks) according to Dame & Collins, Fl. Middlesex Co. 35, 1888; " ' Rare in Lynn, Dr. Holder legit ' (Tracy) ", according to Robinson, Fl. Essex Co. 52, 1880.

HAMAMELIDACEAE.

HAMAMELIS.

H. virginiana L. Swamps and moist open woods; frequent throughout.

PLATANACEAE.

PLATANUS.

P. occidentalis L. Moist soil, especially by streams; occasional throughout, native in some places, transplanted to others.

C. H. Knowlton, Walter Deane } *Committee on Local Flora.*

ANOMALOUS FLOWERS OF POGONIA VERTICILLATA.

Frank Walters.

On June 1st, 1916, I went to Mt. Washington, Berkshire County, Massachusetts, and visited a colony of *Pogonia verticillata* which I located there the preceding summer. I wanted to see if any of the plants were in flower, as I could find no evidence last year that any had flowered that season. A fair proportion of the plants were in flower. I found one plant 2-flowered, with flowers on separate peduncles, and a remarkable series of six plants each with two flowers on one thickened peduncle. As the plants vary somewhat I will describe them.

Plant No. 1. One flower perfect; the other flower with lip and column, and one petal (lacks one) opposite the lip. Has but two sepals, the one usually over the column being absent. One sepal is twice the usual width.

Plants Nos. 2, 3 and 4. One flower perfect. The other has column, but no lip, and has two petals placed opposite each other and appearing to enclose the column, although they are free their full length. Sepals 2, at sides (not over) the petals; the lip replaced by a petal.

Plant No. 5. Peduncle (3.2 cm. long) divided about 6 mm. from base of flowers; otherwise similar to Nos. 2, 3 and 4.

Plant No. 6. Peduncle (3.7 cm. long) divided about 2 mm. from base of flowers; and one sepal of the imperfect flower is very wide; otherwise similar to Nos. 2, 3 and 4.

The six plants were not growing in one little group but were scattered about. It is probable, however, that a 25-foot circle would have enclosed them. It is strange that each plant has but five sepals; in each case the sepal usually over the column is absent from the imperfect flower. As the flowers are placed lip to lip and grow close together it is that sepal which has the best chance to develop, not being in contact with the other flower. The parts of all the columns are perfect in every way. The plants each have five leaves, are of average height, and the sepals are of average length.

The following day I visited a colony of *Pogonia verticillata* in Great Barrington and examined over seventy flowering plants, but aside from one 2-flowered plant they presented no unusual features.

Great Barrington, Massachusetts.

ERRATA.

Page 50, line 34; *for* Fairbanks *read* Fairfield.
" 62, " 32; for *carolinianum* read *caroliniana.*
" 64, " 29; for *californicum* read *californica.*
" 65, " 19; for *californicum* read *californica.*
" 120, " 32; for CONRAD read CONARD.
" 146, " 6; for *Sabbatia* read *Sabatia.*
" 157, " 27; for *cephalotes* read *Cephalotes.*
" 158, " 22; for *eximium* read *eximia.*
" 158, " 26; for LIMONIUM IMBRICATUM read **Limonium imbricatum.**
" 159, " 13; for **alba** read *alba.*
" 159, " 18; for *angustifolium* read *angustifolia.*
" 221, " 5; *after* (L.) *insert* Bess.
" 234, " 14; for PENNYSLVANICA read PENNSYLVANICA.
On the first page of the cover for the May number *for* Conrad *read* Conard.

Vol. 18, no. 215, including pages 225 to 240, was issued 1 November, 1916.

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